



## SEMINAIRE ISMO

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### **Engineering DNA-nanostructure-based molecular tools for biophysical and biological study.**

Biological systems create very complex devices with nanometer-scale dimensions and precisely controlled three-dimensional architectures. The last decades have witnessed the rapid development of DNA as a molecular engineering material to create biomimetic nanostructures with controlled geometries, topologies and periodicities of increasing complexity. Currently in Montpellier, we focus on building artificial DNA nano-systems called “DNA origami” that help solve problems of biophysical and medical interest.

First, I will present the ability to engineer a complex DNA origami nanostructure that exhibit controlled motion driven by dynamic linkage. This dynamic DNA Origami have been designed as a nano-sensor platform and for single-molecule microscopy experiments.

Second, I will present a new method for imaging complex DNA origami structures at isotropic 3D super-resolution by single-particle reconstruction.

**Mardi 9 février 2016 à 11h**  
**Bât. 351 – 2<sup>ème</sup> étage (Bibliothèque)**  
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